

# JVC®

**HD-ILA™**  
Powered by **D-ILA**

## ***Projection Television Users Guide***

***For Models:  
HD-56FH96  
HD-61FH96  
HD-70FH96***



***Illustration of HD-70FH96 and RM-C14G***

### **Important Note:**





In the spaces below, enter the model and serial number of your television (located at the rear of the television cabinet). Staple your sales receipt or invoice to the inside cover of this guide. Keep this user's guide in a convenient place for future reference. Keep the carton and original packaging for future use.

**Model Number:** \_\_\_\_\_

**Serial Number:** \_\_\_\_\_

LCT1936-001B-A  
1005TNH-II-IM

# Important Safety Precautions

	<b>CAUTION</b> <b>RISK OF ELECTRIC SHOCK</b> <b>DO NOT OPEN</b>	
<b>CAUTION:</b> To reduce the risk of electric shock. Do not remove cover (or back). No user serviceable parts inside. Refer servicing to qualified service personnel.		
	The lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.	
	The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.	

**WARNING:** TO PREVENT FIRE OR SHOCK HAZARDS, DO NOT EXPOSE THIS TV SET TO RAIN OR MOISTURE.

**CAUTION:** TO INSURE PERSONAL SAFETY, OBSERVE THE FOLLOWING RULES REGARDING THE USE OF THIS UNIT.

1. Operate only from the power source specified on the unit.
2. Avoid damaging the AC plug and power cord.
3. Avoid Improper installation and never position the unit where good ventilation is unattainable.
4. Do not allow objects or liquid into the cabinet openings.
5. In the event of trouble, unplug the unit and call a service technician. Do not attempt to repair it yourself or remove the rear cover.

Changes or modifications not approved by JVC could void the warranty.

- \* When you don't use this TV set for a long period of time, be sure to disconnect both the power plug from the AC outlet and antenna for your safety.
- \* To prevent electric shock do not use this polarized plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.



## NOTICE (for USA)

This product has a High Intensity Discharge (HID) lamp that contains a small amount of mercury. It also contains lead in some components. Disposal of these materials may be regulated in your community due to environmental considerations. For disposal or recycling information, please contact your local authorities, or the Electronics Industries Alliance: <http://www.eiae.org>

This product incorporates copyright protection technology that is protected by U.S. patents and other intellectual property rights. Use of this copyright protection technology must be authorized by Macrovision, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision. Reverse engineering or disassembly is prohibited.

Some pay-per-view programs may be licensed from producers as "view-only" programs. These are copyrighted programs and may not be copied or reproduced for any purpose without the express written permission of the copyright owner.

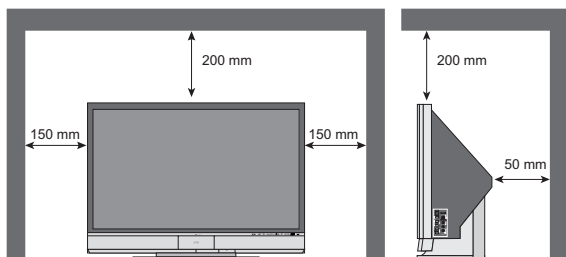
For best viewing, if your VCR is "ON", turn the TV/VCR switch to the "TV" position.

## IMPORTANT SAFETY INSTRUCTIONS

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this apparatus near water.
- 6) Clean only with dry cloth.
- 7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11) Only use attachments/accessories specified by the manufacturer.
- 12) Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



- 13) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- 15) Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.
- 16) Avoid improper installation and never position the unit where good ventilation is impossible. When installing this TV, distance recommendations must be maintained between the set and the wall, as well as inside a tightly enclosed area or piece of furniture. Keep to the minimum distance guidelines shown for safe operation.



**17) Cautions for installation**

- Do not tilt the TV towards the left or right, or towards the back.
- Install the TV in a corner on the floor so as to keep cords out of the way.
- The TV will generate a slight amount of heat during operation. Ensure that sufficient space is available around the TV to allow satisfactory cooling.

**FCC Notice:**

**Note:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

# Warnings

## Caring for the Cabinet

Normally, light dusting with a soft, non-scratching duster will keep your TV clean.

If you wish to wipe down the television, first unplug it. Then wipe gently with a soft cloth, slightly moistened with water. You can add a few drops of mild liquid detergent to the water to help remove spots of oily dirt.

- DO NOT allow liquid to enter the TV through the ventilation slots.
- DO NOT use strong or abrasive cleaners on the TV.
- DO NOT spray liquids or cleaners directly on the TV's surface.
- DO NOT rub or scrub the TV harshly. Wipe the set gently with a soft cloth.

## Caring for the Screen

The screen is treated with an electrostatic-proof coating. When it gets dirty, wipe it gently with a soft cloth. If the screen is very dirty, wipe it down with a cloth dipped in a diluted kitchen cleaner and thoroughly wrung-out. Then wipe immediately after with a clean, dry cloth.

Do not apply alcohol, organic solvents (like acetone), acidic or alkaline cleansers to the screen. These will remove the coating layer and cause discolorations.

Do not push or hit the screen. This could cause scratches on the screen surface and image distortions.

# Warnings

Thank you for purchasing JVC's model HD-56FH96, HD-61FH96 or HD-70FH96 HDTV-ready projection television which uses the high-quality HD-ILA projection system. This is one of the highest quality and most technologically advanced televisions available today. It is recommended that you read this instruction manual before using your television in order to learn about its many features. Cautions related to the safe use of the device and important information which will help you to be able to use this device for a long time is in the Appendix. Once again, thank you for purchasing this television and please enjoy using it.

## In order to use the television for a long time

This television uses a lamp to project the picture onto the screen. Before using this television, please read the safety cautions and information about this television which are summarized below.

### 1. When the power is turned on, the warming up commences

This television uses a lamp to project the picture onto the screen. Once the lamp has warmed up, you can enjoy the pictures at their full brightness. What happens when the power is turned on is explained below. Immediately after the power is turned on, since the lamp has not had time to warm up, the picture is displayed only dimly on the screen. As the lamp warms up, the picture becomes brighter. It takes approximately one minute for the lamp to warm up to its normal operating temperature. There are 2 LED indicators on the front panel of the television that can be used as a guide. When the POWER button is pressed, the LAMP/PROGRAM LED indicator blinks in orange for approximately 1 minute at approximately every 2 seconds, and then goes out.

**Note:** It is impossible to turn the power off during this period. After 1 or more minutes have passed, you can turn off the power.

### 2. Cooling the inside of the television and the lamp

**Cooling is also performed while the television is being shut down.**

When the POWER button is pressed to turn off the power, the following operations are performed. When the television is turned off, the picture on the screen disappears. Once the screen is dark, cooling is performed for approximately 90 seconds. When the cooling is being performed, the LAMP/PROGRAM LED indicator on the front panel blinks in orange at approximately every 3 seconds. **The television can not be operated while the cooling is being performed.** After the cooling has been performed for 90 seconds, the power is turned off. **Do not remove the electrical plug until after the cooling process has completed.** If the electrical plug is removed before the cooling process has completed, the internal circuits and lamp may overheat leading to the life of the lamp being shortened and the possibility of malfunctions.

**Do not block the ventilation holes.**

Do not block the ventilation holes while the power is turned on. Do not block the air intake holes behind the speaker grills.

### 3. The lamp is a consumable item

Replace the lamp when it has blown or when the picture becomes dark. The lamp is a user replaceable item. The lamp must be recycled. For a detailed explanation on how to recycle the lamp, refer to the Appendix and the instructions that are included with the replacement lamp kit. The life of the lamp changes depending on the atmospheric temperature and altitude in which the TV is being used.

# Warnings

## 4. The television requires a lot of electrical power

It is recommended that the television is connected directly to the wall socket, and not to another device. When connecting the television to a wall socket that is being used by another device, or when using an extension cord, be careful not to exceed the electrical capacity of the socket.

### **Do not turn the power on and off repeatedly in a short amount of time.**

It subjects the television and the lamp to stress and may lead to malfunctions and the life of the lamp being shortened.

## 5. The screen is made of plastic

Handle the screen very carefully as it can scratch easily. Do not rub, hit or press on it with any hard objects. When the screen is dirty, gently wipe it with a soft cloth. Refer to the Appendix for details on how to clean the screen.

## 6. Caution! Warm air from the air ducts

This unit has an air duct for cooling. The duct will blow warm air while the television is operating. When placing the television, make sure not to locate it too close to wallpaper. The warm air could cause the color of the wallpaper to change. Also, take care to keep children and pets away from the warm air ducts. Long exposure to the warm air from the ducts could cause a minor burn.

## 7. Caution! Moving this television

When lifting this television, Do not hold by the screen frame. Holding the screen frame could cause it to detach, causing the television to fall.

## 8. Do not replace the lamp immediately after use

The lamp becomes extremely hot during use. If the lamp is touched immediately after use before it has a chance to cool down, there is a danger of burns. Be careful when handling the lamp.

## 9. Do not touch the lamp glass

If the lamp is used when there is dirt from fingers on the lamp glass, there is a possibility of the lamp breaking. Be careful not to touch the lamp glass.

## 10. ILA element characteristics

Do not project still pictures or pictures that have still segments for a long period of time. The still parts of the picture may remain on the screen. This is a characteristic of ILA elements and not a malfunction. The picture will disappear over time.

## 11. Condensation

When a heater is turned on or the television is moved from a cold place to a hot place, droplets of water may form on the lamp and screen. This is called condensation. If the television is used while this condensation is still present, the picture may seem distorted, and the inside of the screen may become dirty. In this case, wait until the condensation has gone before using the television.

## 12. Do not open the rear cabinet of this television

This television has a DIGITAL-IN terminal. Opening up the rear cabinet will violate the copyright of the program or software shown on the television. Please do not open the rear cabinet.

## 13. Usable Time

Do not keep the TV on for more than 24 hours consecutively. There is a possibility of the life of the lamp being shortened.

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Thank you for your purchase of a JVC Color Television. Before you begin setting up your new television, please check to make sure you have all of the following items. In addition to this guide, your television box should include:

Television x 1



Remote Control x 1

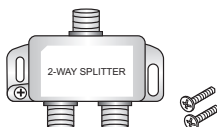


AA  
Batteries x 2



**Note: Your television and/or remote control may differ from the examples illustrated here.**

Two Way Splitter x 1



RF Cables x 2



Once you have unpacked your television, the next step is to connect it to your antenna/cable or satellite system and to connect the audio/video devices you want to use with your television. To make these connections you will use plugs like the ones illustrated below.

### Coaxial Cables



Used to connect an external antenna or cable TV system to your TV.

### S-Video Cable



Used to make video connections with S-Video VCRs, Camcorders and DVD players.

### Component Cables Composite Cables Audio Cables



Used to connect audio/video devices like VCRs, DVD players, stereo amplifiers, game consoles, etc.

### AV CompuLink Cable



Used to connect JVC AV CompuLink capable components for an automated home theater.

We recommend that before you start using your new television, you read your entire User's Guide so you can learn about your new television's many great features. If you're anxious to start using your television right away, a quick setup guide follows on the next few pages.

**NOTE:** Before you connect your television to another device, please refer to the proper diagrams for your specific TV and remote. These will help assist you in understanding how to connect your television to another device, as well as use the remote to set up your television.

## Rear Panel Diagram

### MODELS:

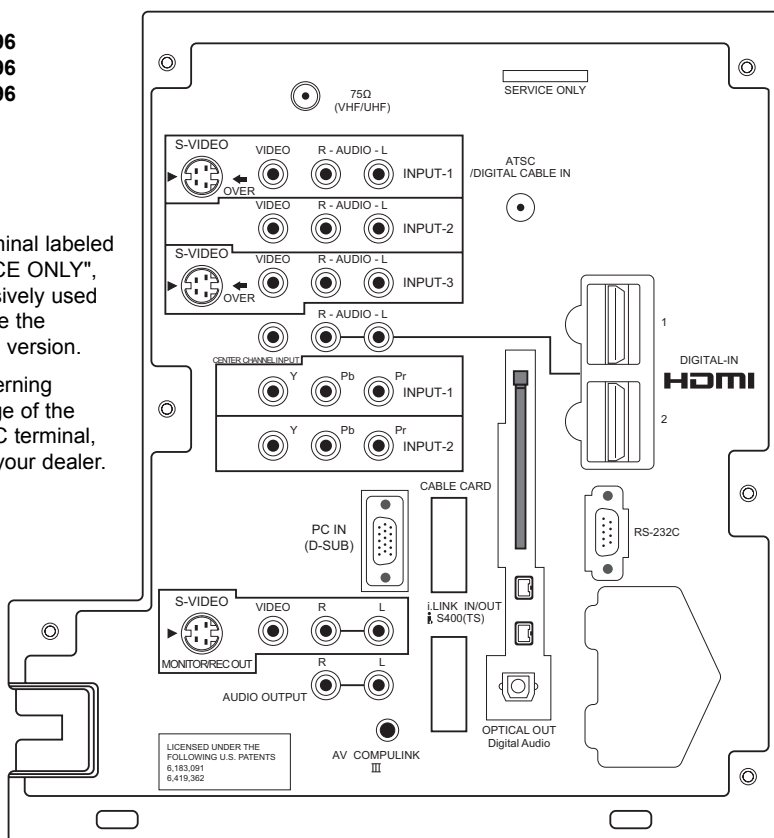
**HD-56FH96**

**HD-61FH96**

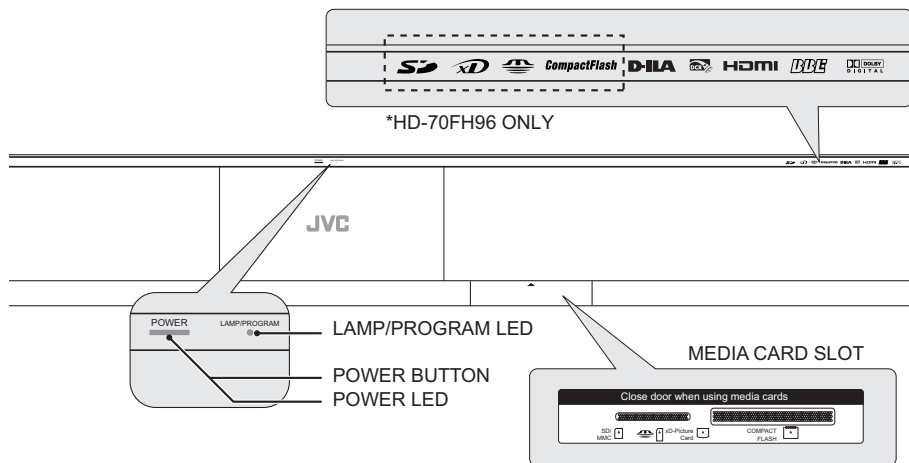
**HD-70FH96**

### Note:

- The terminal labeled "SERVICE ONLY", is exclusively used to update the software version.
- For governing the usage of the RS-232C terminal, consult your dealer.



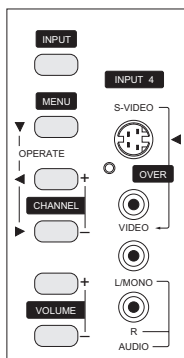
## Front Panel Diagram



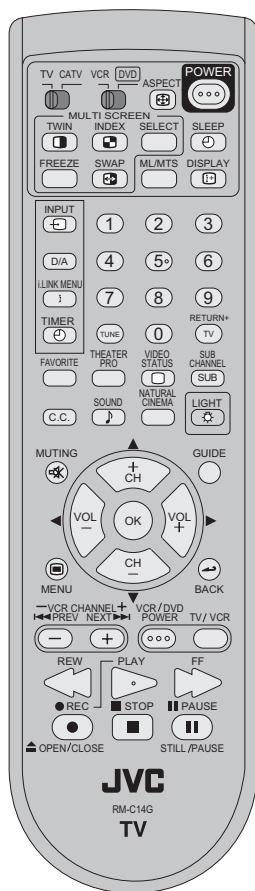
**MODELS: HD-56FH96, HD-61FH96, HD-70FH96**

- For information on the LED, see page 102.
- Media Card Slot is for HD-70FH96 ONLY. To open the door, gently pull the tab on the door.

## Side Panel Diagram



**MODELS: HD-56FH96, HD-61FH96, HD-70FH96**



## RM-C14G

**MODELS:**  
**HD-56FH96**  
**HD-61FH96**  
**HD-70FH96**

- For information on remote control buttons, see pages 67 - 77 and 81 - 86.
- i.LINK MENU, TIMER, SUB CHANNEL and GUIDE buttons are for digital channels. If your TV is connected to an ATSC antenna or Digital Cable, you can use these buttons.

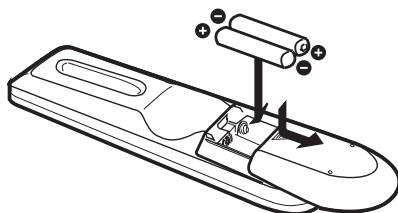
## Getting Started

These quick setup pages will provide you, in three easy steps, with the basic information you need to begin using your new television right away. If you have questions, or for more detailed information on any of these steps, please consult other sections of this manual.

### Step 1 – The Remote Control

Before you can operate your remote control, you first need to install the batteries (included).

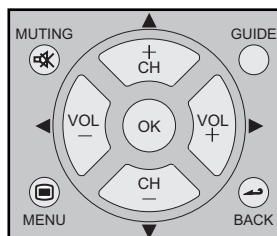
Slide the cover on the back of the remote down towards the bottom of the remote control. Insert two batteries (included) carefully noting the “+” and “-” markings, placing the “-” end in the unit first. Slide the cover back into place.



**When you change the batteries, try to complete the task within three minutes. If you take longer than three minutes, the remote control codes for your VCR, DVD, and/or cable box/satellite receiver may have to be reset. See pages 33 - 36.**

### Key Feature Buttons

The four key feature buttons at the center of the remote can be used for basic operation of the television. The top and bottom buttons will scan forward and back through the available channels. To move rapidly through the channels using JVC's **Hyperscan** feature, press and hold CH+ or CH-. The channels will zip by at a rate of five channels per second. The right and left buttons will turn the volume up or down. These buttons are also marked with four arrows and are used with JVC's onscreen menu system. To use the onscreen menus, press the MENU button.



### Basic Operation

Turn the television on and off by pressing the POWER button at the top right corner of the remote. The POWER LED will light blue. If this is the first time you are turning on the TV, the interactive plug-in menu appears.

- Make sure the TV/CATV switch is set to TV. Move the switch to CATV only if you need to operate a cable box.
- Slide the VCR/DVD selector switch to VCR to control a VCR. Slide to DVD to control a DVD player. Please see pages 33 to 36 for instructions on programming your remote control to operate a cable box, VCR or DVD player.



#### Note:

- If the lamp replacement message appears when you turn the television ON, see page 100.

## Step 2 – Connecting Your Devices

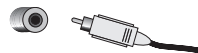
To make these connections, you will use plugs like the ones illustrated below.

### S-Video Cable



Used to make video connections with S-Video VCRs, Camcorders and DVD players.

### Component Cables Composite Cables Audio Cables

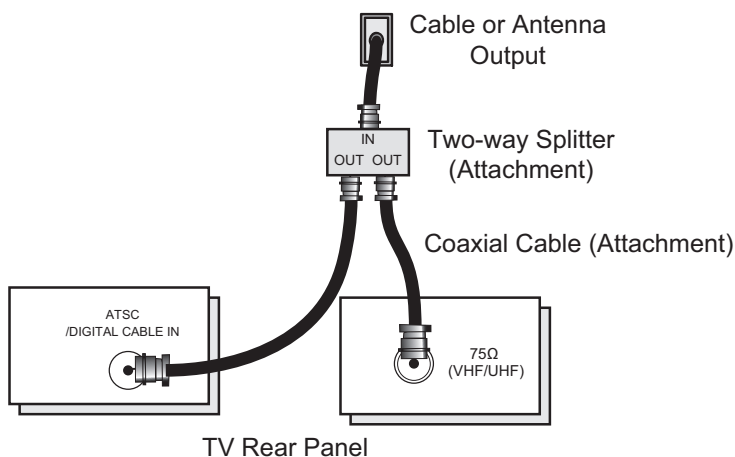


Used to connect audio/video devices like VCRs, DVD players, stereo amplifiers, game consoles, etc.

### Notes:

- These connections are examples.
- After you are finished connecting your devices, plug the power cord into the nearest power outlet and turn on the TV.
- If you follow these diagrams and the television does not work properly, contact your local cable operator.
- To connect a DVD player, see VCR Connection. A DVD player is optional
- If you have a satellite television system, refer to the satellite TV manual.

### No VCR Connection



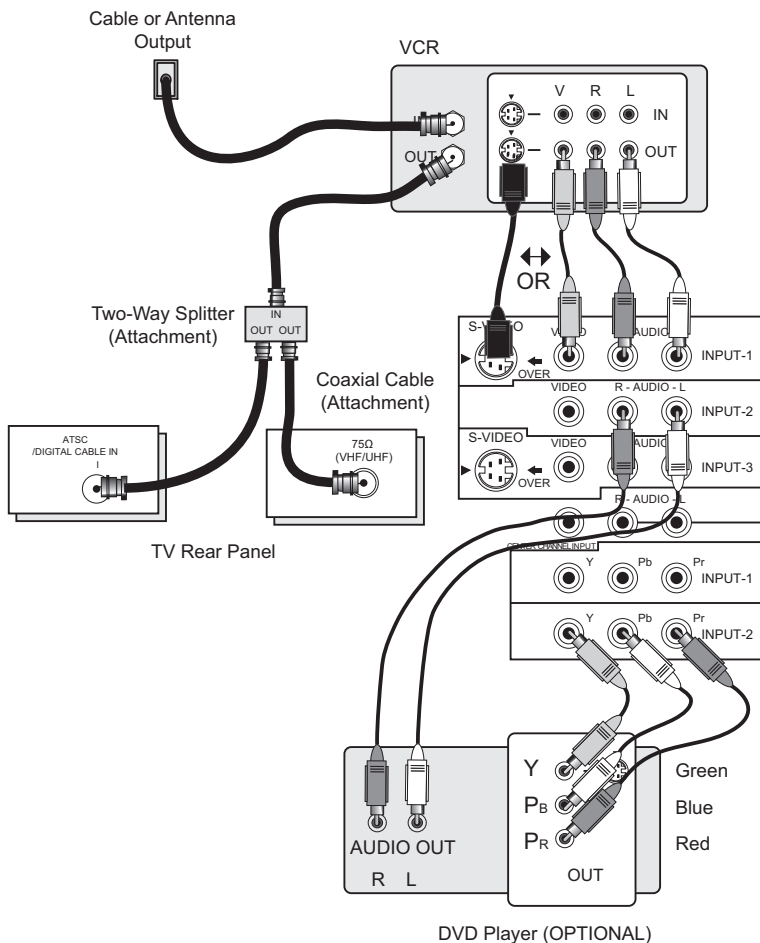


## VCR Connection

### Notes:

- Green, blue and red are the most common colors for DVD cables. Some models may vary colors. Please consult the user's manual for your DVD player for more information.
- Be careful not to confuse the red DVD cable with the red audio cable. It is best to complete one set of connections (DVD or audio output) before starting the other to avoid accidentally switching the cables.
- You may also connect the DVD player to Input 1.

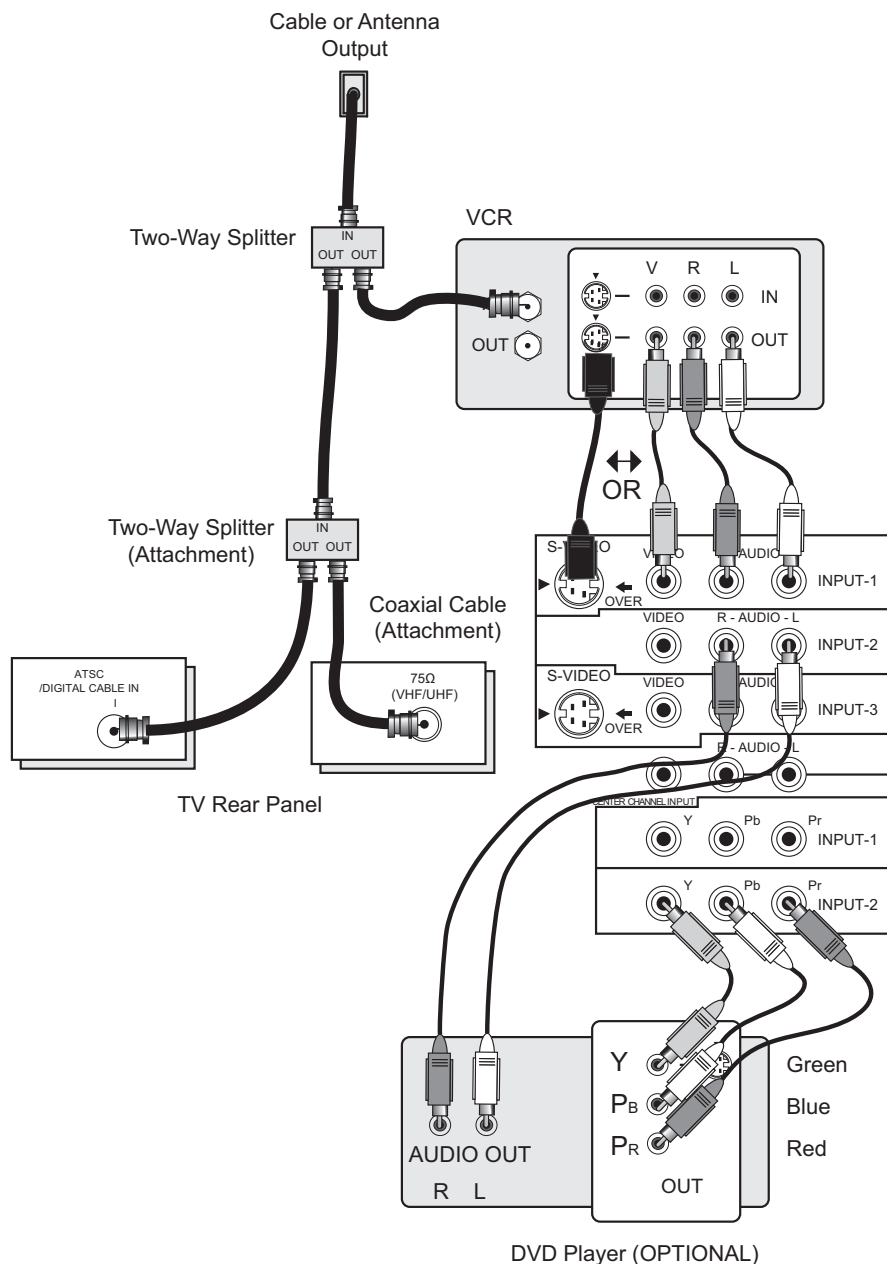
**Diagram #1**



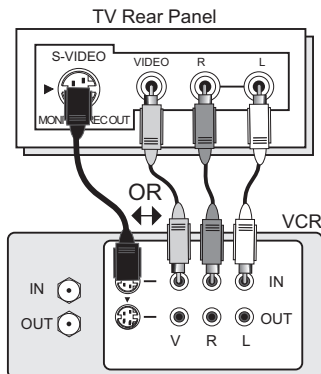
### Note:

- If this connection setup does not work for you, try the connection setup on page 18.

Diagram #2



### Connecting to Monitor/Recording Output Terminal



#### Notes:

- When you make this connection, set the Video-1 Monitor Out menu to ON. See page 57.
- If you are receiving ATSC/Digital Cable signal, it can be outputted to the S-Video output terminal or Video (composite video) terminal.
- If you are receiving Analog TV signal, it can not be outputted to the S-Video output terminal.
- No signal will be outputted through the S-Video output terminal when you are not viewing images coming from the composite video input terminal.
- No signal will be outputted through the Monitor/Recording output terminal when you are viewing images from the component video input.
- If you try and record copyright protected programs using a VCR, you will not be able to record correctly. This is because of the copyright protection system. If you are watching a copyright protected program using a VCR, the picture will be distorted on the TV. This is due to the copyright protection system, and is not a malfunction of your TV.

## Connecting to JVC AV Compu Link

JVC's AV CompuLink feature makes playing video tapes or DVDs totally automatic. Simply insert a pre-recorded tape into your JVC brand VCR or DVD into your JVC DVD player and the device will automatically turn on and begin playback. At the same time, using the AV CompuLink, the VCR or DVD player sends a signal to the television telling it to turn on and switch to the proper video input.

- The AV CompuLink cable may be included with the JVC AV CompuLink unit you wish to connect. If it is not, contact JVC Parts Department at (800)-882-2345, or [www.jvcservice.com](http://www.jvcservice.com) for part # EWP 805-012.
- AV CompuLink can only be used with JVC brand products.

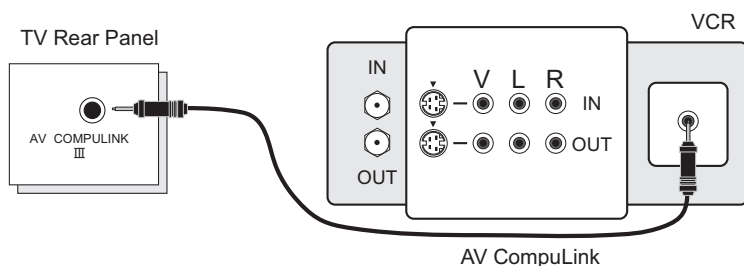
### AV CompuLink Cable



**To Connect:** Plug one end of the AV CompuLink cable into the AV COMPULINK INPUT on your VCR, DVD, or other CompuLink device. Plug the other end of the AV CompuLink cable into the AV COMPULINK at the rear of the television.

**Note:**

- The AV CompuLink cable has a male 3.5 mm (mono) plug on each end.

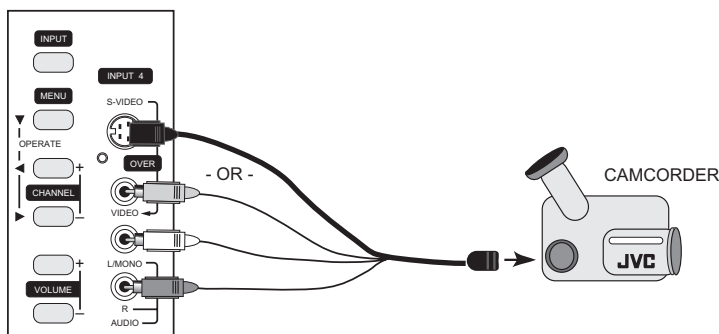


**Notes:**

- In order for the VCR playback to begin automatically, the recording tabs must be removed from the VHS tape. If the tab is in place, automatic switching will occur when you push the VCR's PLAY button.
- If your JVC brand VCR has "A code/B code remote control switching" (see your VCR's instruction book), using VCR A code will switch the TV to input 1.
- Refer to your DVD instruction book for detailed connection information.
- To connect a JVC HiFi receiver or amplifier for a completely automated home theater, see the receiver connection instructions for detailed connection information.
- AV CompuLink is compatible with select AV CompuLink receivers.

## Connecting to a Camcorder

You may connect a camcorder, game console or other equipment to your television by using the side input jacks (Input 4) located on the side of the television. You can also connect these using the television's rear input jacks, using the same instructions.



- 1) Connect a yellow composite cable from the camcorder VIDEO OUT, into the VIDEO IN on the side of the TV, **OR** connect an S-Video cable from the side of the TV to the camcorder.
- 2) Connect a white cable from the camcorder LEFT AUDIO OUT, into the LEFT AUDIO IN on the side of the TV.
- 3) Connect a red cable from the camcorder RIGHT AUDIO OUT, into the RIGHT AUDIO IN on the side of the TV.

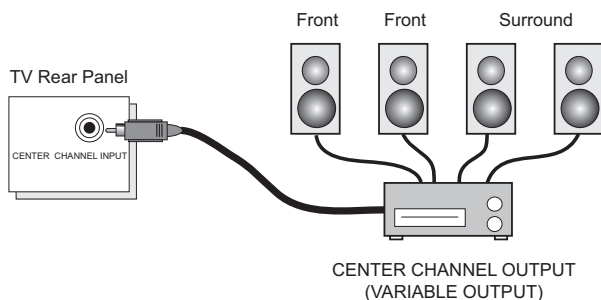
**Note:**

- If your camcorder is a mono sound model it will have only one AUDIO OUT. Connect it to the L/MONO on the side of the TV.

## Connecting to the Surround Amplifier

In multi-channel sound such as 5.1 channel, the speech characters are played back from the center speaker.

A center speaker in a movie theater is set in back of the screen so it can recreate a conversation scene in the movie more naturally. By using your TV's speaker as the center speaker, you can obtain the same sound effect as in a movie theater in your home theater sound system.

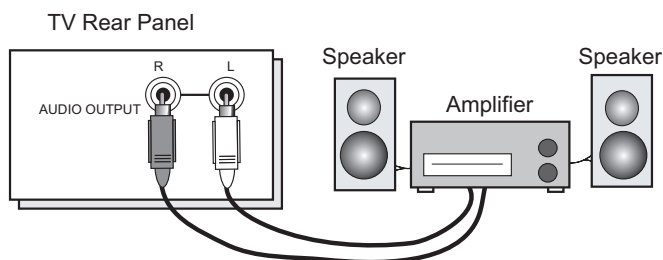


- 1) Connect the Pin cable from the TV's CENTER CHANNEL INPUT terminal to the surround amplifier's CENTER CHANNEL OUTPUT terminal.

**Note:**

- Please read the benefit of this feature on page 59.

## Connecting to an External Amplifier



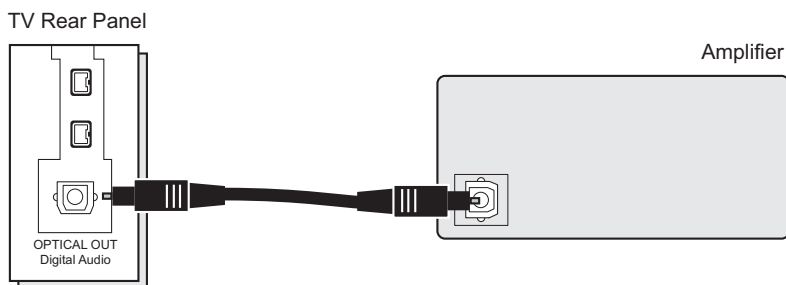
- 1) Connect a white cable from the LEFT AUDIO OUTPUT on the back of the TV to the LEFT AUDIO INPUT on the amplifier.
- 2) Connect a red cable from the RIGHT AUDIO OUTPUT on the back of the TV to the RIGHT AUDIO INPUT on the amplifier.

**Notes:**

- Refer to your amplifier's manual for more information.
- You can use AUDIO OUTPUT for your home theater system.

## *Connecting to an amplifier using your optical output*

You can connect an amplifier that has an optical digital input terminal by using an optical digital cable from the optical output. The signal that is output can be PCM or Dolby Digital.



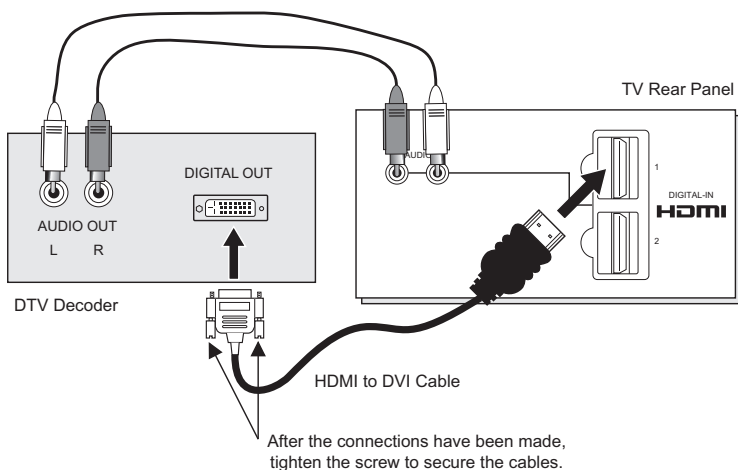
- 1) Connect the optical cable from the back of the TV to the back of the amplifier.

**Notes:**

- This terminal can only output digital audio.
- In order to use the optical output connection, select PCM or Dolby Digital on Digital Sound in the Digital Setup Menu. See page 79.
- Refer to your owners manual on using your amplifier.

## Connecting to a Digital TV Receiver

By connecting a Digital TV Receiver, high definition pictures can be displayed on your TV in their digital form.



- 1) Connect the HDMI to DVI Cable from the DIGITAL OUT on the back of your DTV decoder, to the DIGITAL-IN on the back of your television.
  - 2) Connect a red cable from the DTV decoder RIGHT AUDIO OUT, to the RIGHT AUDIO DIGITAL-IN on the back of your television.
  - 3) Connect a white cable from the DTV decoder LEFT AUDIO OUT, to the LEFT AUDIO DIGITAL-IN on the back of your television.
- The digital-in terminal is not compatible with the picture signal of a personal computer.
  - Use a HDMI to DVI cable (commercially available) in order to digitally connect the television with a DTV decoder.

### Notes:

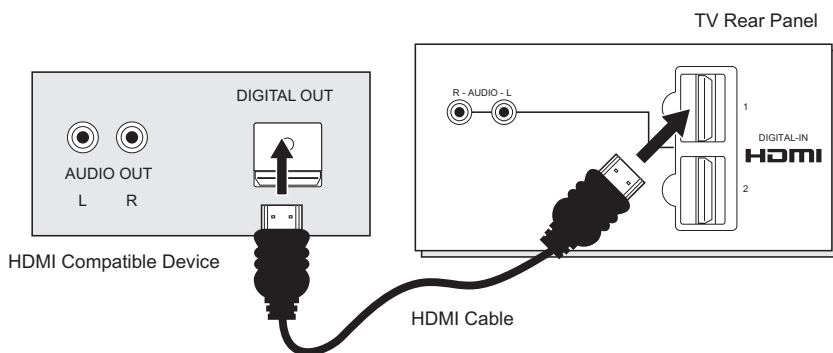
- If 480p signals (640x480 or 720x480) are displayed on the screen, the horizontal balance may be slightly shifted. Access the "DIGITAL-IN" in the initial setup menu to adjust it. (Refer to page 58.)
- When you do the above connection, set DIGITAL-IN AUDIO in the Initial Setup menu to ANALOG. See "DIGITAL-IN AUDIO", page 58.
- The Analog Audio input can only be used with the HDMI 1 input.
- When setting the "DIGITAL AUDIO – ANALOG / DIGITAL" menu setting on the TV, please note that this setting only effects the HDMI 1 jack and that if you use a DVI to HDMI adapter this connection must be made to the HDMI 1 along with analog audio cables.



## Connecting to an HDMI Compatible Device

By connecting an HDMI compatible device, high definition pictures can be displayed on your TV in their digital form. Some HDMI devices can include DVD players, D-VHS or any HDMI compatible devices.

HDMI (High Definition Multimedia Interface) is the first industry supported, uncompressed, all digital audio/video interface. HDMI provides an interface between any audio/video source, such as a set-top box, DVD player, A/V receiver or an audio and/or video monitor, such as a digital television (DTV).



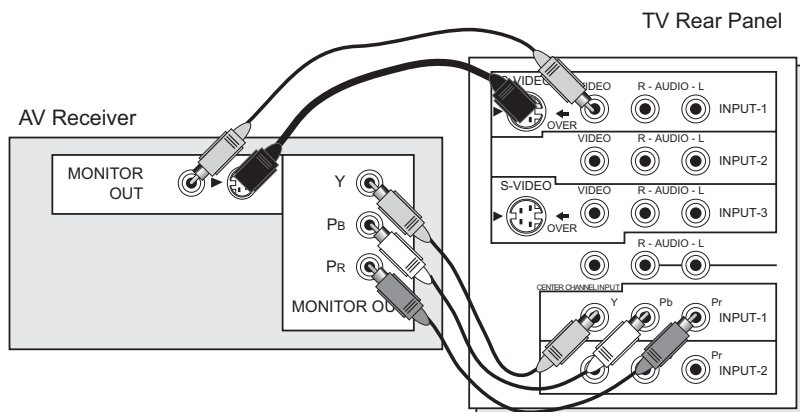
- 1) Connect the HDMI Cable from the DIGITAL OUT on the back of your DTV or HDMI device, to the DIGITAL-IN on the back of your television.

### Notes:

- When you do the above connection, set DIGITAL-IN AUDIO in the Initial Setup menu to DIGITAL. See "DIGITAL-IN AUDIO", page 58.
- Some decoders may not respond depending on the equipment that you have connected when it is connected to the HDMI.
- If the HDMI output device signal is changed (for example, 480i/60Hz is changed to 480p/60Hz), the screen may turn green and there may be some distortion for a short time until the signal becomes stable.

## Connecting to an AV Receiver using your television's V1 Smart Input

By connecting your AV Receiver to your television's V1 Smart Input, you can watch picture sources from many different devices, without having to change or use the other input connections on your TV. This allows you to free up the other input connections so you can connect more devices to your television.




- 1) Connect an S-Video Cable from the AV Receiver's MONITOR OUT, to the S-Video INPUT-1 on the back of your television.
- 2) Connect a Yellow Composite Cable from the AV Receiver's MONITOR OUT, into the VIDEO INPUT-1 on the back of your television.
- 3) Connect a Green Component Cable from the AV Receiver's Y MONITOR OUT, into the Y VIDEO INPUT-1 on the back of your television.
- 4) Connect a Blue Component Cable from the AV Receiver's Pb MONITOR OUT, into the Pb VIDEO INPUT-1 on the back of your television.
- 5) Connect a Red Component Cable from the AV Receiver's Pr MONITOR OUT, into the Pr VIDEO INPUT-1 on the back of your television.

### Note:

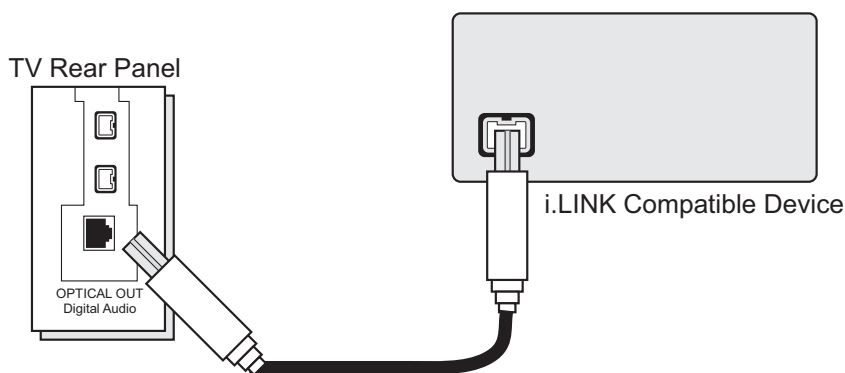
- Please refer to your AV Receiver instruction manual for more information on connecting your speakers and other devices like a DVD player.
- Use your AV Receiver's remote to switch to the different devices you have connected.
- Some AV Receivers may not respond when the V1 Smart Input function is turned on.
- If you have video connections for each input device connected to your AV Receiver, you should not connect them using both S-Video and Composite connection at the same time when you are using V1 Input as the V1 Smart Input. In this case we recommend using the S-Video connection.

## ***Connecting an i.LINK compatible device to the back of your television***

i.LINK is a digital serial interface that allows devices equipped with an i.LINK connector to exchange digital video signals, digital audio signals and device control signals bi-directionally over a single cable. (For example, a JVC D-VHS VCR).

i.LINK refers to the IEEE1394-1995 industry specification and extensions thereof. The  logo is used for products compliant with the i.LINK standard.

This projection television uses a four-pin i.LINK connector to input and output MPEG2 video signals, audio signals and control signals.



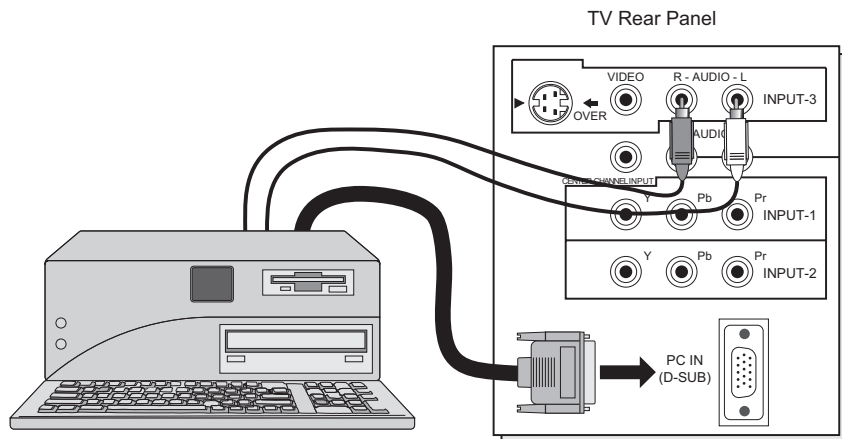
- 1) Connect the i.LINK cable from the back of the TV to the back of the i.LINK compatible device.

### **Notes:**

- Use only the S400 i.LINK cable when connection your devices.
- See page 83 on how to select the i.LINK device.
- Refer to your owners manual on using your i.LINK device.
- When recording or playing back video with an i.LINK device, if you perform the Auto Tuner Setup, the video signal you are recording or playing back may stop or you may not be able to perform the Digital Auto Tuner Setup.
- Your television can connect with i.LINK D-VHS decks and HD-Camcorders (JVC brand only). If you connect other brand devices, with i.LINK cable, they will not work.
- It can play only the recorded contents in Digital Mode.
- Use only tapes bearing the DVHS (SVHS) mark for recording.

## Connecting to the computer

This TV can be used as a computer screen. Use a commercially available D-SUB cable to connect the TV's PC INPUT terminal to the computer's analog RGB output terminal. If you want to listen to the sound from the computer, use a commercially available RCA cable to connect the INPUT-3 audio input terminal to the computer's audio output terminal.



### Notes:

- Refer to your computer manual for a detailed explanation of the connections concerning your computer.
- Make sure that the connectors are facing the correct way when connecting.
- After connecting, tighten the two screws to fix the connectors in place.

## Looking at the images from a computer

After starting the computer, press the INPUT button to choose INPUT-3. You can listen to the sound when the sound from the computer is connected to the INPUT-3 AUDIO input terminal.

### Notes:

- When the sound from the computer is connected to INPUT-3 by choosing external input INPUT-3, the sound from the computer can be listened to, but the images from the computer cannot be seen.

**Table of signals for each type of computer**

Resolution	Vertical Frequency (Hz)	Horizontal Frequency (kHz)
640 x 480 (VGA)	60.0	31.5
1024 x 768 (XGA)	60.0	48.4

- Only the above formats are supported.
- Even with the above formats at 60 Hz, some problems may be experienced depending on the quality of the synchronous signal. (Depending on the quality, some pictures may not be displayed correctly).
- Apple Macintosh\* computers are not supported.

**When a picture is not displayed**

With some computers, some problems can be solved by changing the settings. Check the computer's refresh rate and set it to 60Hz. Computers that cannot set the refresh rate to 60 Hz, can not be used with this TV. Refer to the computer's instruction manual.

\*Apple Macintosh is a registered trademark of Apple Computer, Inc.

**Note:**

- If you are inputting a PC signal that is invalid, "Invalid Signal" will appear on the TV screen. It appears when the input is PC and it is a single screen.

### Step 3 – The Interactive Plug In Menu

When you turn your television on for the first time the interactive plug-in menu will appear. The plug-in menu helps you to get your TV ready to use by letting you set your preferences for:

- The language in which you want the onscreen menus to appear.
- Setting the TV's clock to the correct time so your timer functions will work properly. You can choose "AUTO" or "MANUAL" for setting the clock.
- The auto tuner setup of which channels you wish to receive.

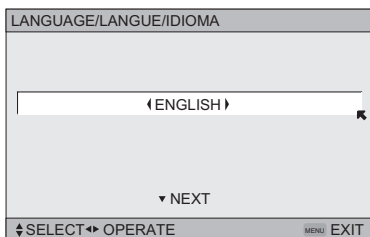
We recommend you complete the interactive plug-in items before you start using your television.

#### Notes:

- The interactive plug-in menu setting does not appear if your TV has been turned on before. In this case use the onscreen menus to perform these settings. See pages 50, 63, 40.
- If you press the Menu button while setting up the interactive plug-in menu, it will skip over it.

## Language

After the "JVC INTERACTIVE PLUG IN MENU" has been displayed, the TV automatically switches to the LANGUAGE settings. You can choose to view your onscreen menus in three languages: English, French (Français) or Spanish (Español).



To choose a language:  
(English, Français or Español)



To NEXT (To set clock)

*(To be continued...)*

## Auto Clock Set

Before you use any of your TV's timer functions, you must first set the clock. You may precisely set your clock using the XDS time signal broadcast by most public analog broadcasting stations. If you do not have this in your area, you will have to set the clock manually. See manual clock set below. To set the clock using the XDS signal:

SET CLOCK	
MODE	← AUTO →
TIME	-- : --
TIME ZONE	← ATLANTIC →
DATE/YEAR	JAN/01/05
D.S.T.	← ON →
▼ NEXT	
◆ SELECT◆ OPERATE      MENU EXIT	

- ◀▶ To choose AUTO
- ▼ To TIME ZONE
- ◀▶ To select your time zone: (Atlantic, Eastern, Central, Mountain, Pacific, Alaska or Hawaii)
- ▼ To move to D.S.T. (Daylight Savings Time)
- ◀▶ To turn D.S.T. ON or OFF
- ▼ To NEXT (To Auto Tuner Setup)

### Notes:

- D.S.T. can be used when it is set to ON in the SET CLOCK menu.
- Only when the MODE is set to AUTO, the Daylight Savings Time feature automatically adjusts your TV's clock for Daylight Savings. The clock will move forward one hour at 2:00 am on the first Sunday in April. The clock will move back one hour at 2:00 am on the last Sunday in October.
- You will have to reset the clock after a power interruption. You must set the clock before operating any timer functions.

## Manual Clock Set

To set your clock manually (without using the XDS signal), choose MANUAL. If you choose AUTO, see auto clock set above.

SET CLOCK	
MODE	← MANUAL →
TIME	-- : --
TIME ZONE	← ATLANTIC →
DATE/YEAR	JAN/01/05
D.S.T.	← ON →
▼ START CLOCK	
◆ SELECT◆ OPERATE      MENU EXIT	

- ◀▶ To choose MANUAL
- ▼ To TIME
- ◀▶ To set the hour
- ▼ To minute
- ◀▶ To set the minute
- ▼ To TIME ZONE
- ◀▶ To select your time zone: (Atlantic, Eastern, Central, Mountain, Pacific, Alaska or Hawaii)
- ▼ To DATE/YEAR
- ◀▶ To set the month
- ▼ To day
- ◀▶ To set the day
- ▼ To year
- ◀▶ To set the year
- ▼ To move to D.S.T. (Daylight Savings Time)
- ◀▶ To turn D.S.T. ON or OFF
- ▼ To START CLOCK

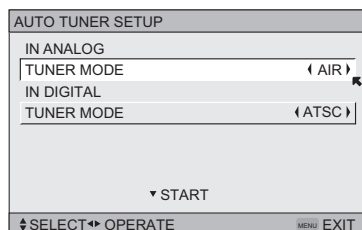
### Note:

- You will have to reset the clock after a power interruption. You must set the clock before operating any timer functions.

**(To be continued...)**

## Auto Tuner Setup

In auto tuner setup, the TV automatically scans through all available channels, memorizing the active ones and skipping over blank ones or channels with weak signals. This means when you scan (using the CHANNEL +/- buttons) you will receive only clear, active channels. There are two tuner modes to choose from, ANALOG or DIGITAL.



To choose CABLE or AIR (or SKIP when you skip Analog Auto Tuner Setup)



To TUNER MODE (IN DIGITAL)

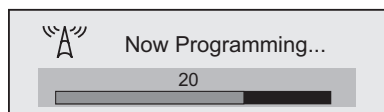


To choose ATSC or Digital Cable (or SKIP when you skip Digital Auto Tuner Setup)



To START

*After Analog Auto Tuner Setup is finished, Digital Auto Tuner Setup starts.*



When the setup is finished, "THANK YOU ! SETUP IS NOW COMPLETE" is displayed. Your quick setup is now complete. You can now begin watching your television, or you can continue on in this guide for more information on programming your remote control, or using the JVC onscreen menu system to customize your television viewing experience.

### Notes:

- If you want to cancel the Auto Tuner Setup, press the MENU button.
- Noise muting will not work during Auto Tuner Setup.
- If you choose SKIP, it finished without doing the Auto Tuner Setup.

**Cable Box and Satellite Users:** After your auto tuner setup is complete, you may, (depending on the type of hookup), have only 1 channel, usually 3 or 4 in the auto tuner memory. This is normal.



## The Quick Setup is complete



# Remote Programming

## Setting the CATV, VCR and DVD Codes

You can program your remote to operate your cable box, satellite receiver, VCR or DVD player by using the instructions and codes listed below. If the equipment does not respond to any of the codes listed below or to the code search function, use the remote control supplied by the manufacturer.

## Cable Box or Satellite Codes

The remote control is programmed with cable box and satellite codes for power on/off, channel up/down, and 10 key operation.

- 1) Find the cable box or satellite brand from the list of codes shown below.
  - 2) Slide the 2-way selector switch to "CATV".
  - 3) Press and hold down the DISPLAY button, then enter the first code number listed with the 10 key pad.
  - 4) Release the DISPLAY button, and confirm the operation of the cable box/satellite receiver.
- If your cable or satellite box does not respond to the first code, try the others listed. If it does not respond to any code, try the search codes function, on page 36.

Cable Box	Codes	Cable Box	Codes	Digital Satellite Systems	Codes
ABC	024	Puser	032	Echostar (Dish Network)  Express VU  G.E.  G.I.  Gradiente  Hitachi  HNS (Hughes)  Magnavox  Panasonic  Philips  Primestar  Proscan  RCA  Sony  Star Choice  Toshiba  Uniden	100, 113, 114, 115  100, 113  106  108, 120, 121, 122  112  104, 111  104  102, 103  105  102, 103, 116  108  106, 109, 110  106, 109, 110  107  104, 108  101, 104, 117, 118, 119  102, 103
Archer	032, 025	RCA	061, 070		
Cableview	051, 032	Realistic	032		
Citizen	022, 051	Regal	058, 064, 040, 041, 042, 045, 068		
Curtis	058, 059				
Diamond	024, 032, 025	Regency	034		
Eagle	029	Rembrandt	037, 032, 051, 038		
Eastern	034				
GC Brand	032, 051	Samsung	051		
Gemini	022, 043	Scientific Atlanta	057, 058, 059		
General Instrument/Jerrol	065, 024, 025, 026, 027, 020, 021, 022, 057, 023, 072, 074	SLMark	051, 047		
		Sprucer	051, 056		
		Stargate	032, 051		
		Telecaption	067		
Hamlin	040, 041, 042, 045, 058, 064	Televue	047, 051		
Hitachi	049, 024	Texscan	044		
Macom	049, 050, 051, 054	Tocom	035, 036, 066, 074		
Magnavox	033				
Memorex	030	Toshiba	050, 048		
Movietime	032, 051	Unika	032, 025		
Oak	039, 037, 048	Universal	022, 032		
Panasonic	055, 056, 060, 071, 073	Videoway	052		
Paragon	063	Viewstar	029, 030		
Philips	028, 029, 030, 052, 053, 031, 069	Zenith	063, 046		
		Zenith/Drake Satellite	046		
Pioneer	047, 062				
Pulsar	051, 032				

# Remote Programming

## VCR Codes

The remote control is programmed with VCR codes for power on/off, play, stop, fast-forward, rewind, pause, record, channel up/down operation.

- 1) Find the VCR brand from the list of codes shown below.
  - 2) Slide the first 2-way selector switch to "TV" and the other 2-way selector switch to "VCR".
  - 3) Press and hold down the DISPLAY button, then enter the first code number listed with the 10 key pad.
  - 4) Release the DISPLAY button, and confirm the operation of the VCR.
- If your VCR does not respond to the first code, try the others listed. If it does not respond to any of the codes, try the search codes function on page 36.
  - After you program your remote, some VCR buttons may not work properly. If so, use the VCR's remote.
  - To record, hold down the REC button on the remote and press PLAY.

VCR	Codes	VCR	Codes	VCR	Codes
Admiral	035	Marantz	003, 004, 005	Samsung	037, 060, 062, 033, 089
Aiwa	027, 032, 095	Marta	064	Samtron	089
Akai	029, 072, 073, 074	Memorex	024, 067	Sansui	003, 026, 020, 052
Audio Dynamic	003, 005	MGA	038, 040, 047, 048, 041, 042	Sanyo	063, 067, 091, 071
Bell & Howell	063, 071	Minolta	058, 045, 093	Scott	059, 060, 062, 067, 038, 040, 047, 048, 026, 020
Broksonic	020, 026, 094	Mitsubishi	038, 040, 047, 048, 041, 042, 078, 090	Sears	063, 064, 065, 066, 058
Canon	023, 025	Multitech	047, 027, 062	Sharp	035, 036, 080, 088
CCE	043	NEC	003, 004, 005, 000	Shintom	075
Citizen	064	Olympic	024, 023	Signature 2000	027, 035
Craig	063, 029, 064	Optimus	028, 021, 035, 064	Singer	075
Curtis Mathes	045, 024, 027, 093	Orion	026, 020	Sony	028, 029, 030, 053, 054, 055
Daewoo	043, 059, 024, 092	Panasonic	023, 024, 021, 022	SV 2000	027
DBX	003, 004, 005	Penney	024, 058, 045, 063, 003, 004, 005, 093	Sylvania	031, 023, 024, 027
Dimensia	045, 093	Pentax	058, 005, 045, 093	Symphonic	027, 081
Emerson	043, 026, 077, 061, 025, 042, 020, 076	Philco	031, 024, 027, 023, 026, 020, 043	Tashiro	064
Fisher	063, 066, 067, 065, 071, 091	Philips	031, 023, 024, 086	Tatung	003, 004, 005
Funai	027, 026, 020, 000	Pioneer	023	Teac	003, 004, 027, 005
G.E.	033, 045, 024	Proscan	045, 058, 023, 024, 031, 046, 059, 060, 093, 033, 087	Technics	021, 022, 023, 024
Go Video	037, 051, 049, 050, 089	Quasar	021, 022, 023, 024	Teknika	024, 027, 070
Goldstar	064	Radio Shack	033, 024, 063, 036, 067, 040, 027	Thomson	033, 096
Gradiente	083, 084, 081, 000, 001	RCA	033, 045, 058, 023, 024, 031, 046, 059, 060, 083, 084, 085, 087, 093, 096	Toshiba	059, 046, 079
Hitachi	023, 045, 058, 093, 027, 081	Realistic	024, 063, 036, 067, 040, 027	Vector Research	005
Instant Replay	024, 023			Wards	035, 036, 067, 044, 064
Jensen	003			Yamaha	063, 003, 004, 005
JVC	003, 004, 005, 000, 001, 002, 006, 007			Zenith	044, 082, 064, 094
Kenwood	003, 004, 064, 005				
LG	064				
LXI	027, 064, 058, 065, 066, 063, 067				
Magnavox	031, 023, 024, 086				

# Remote Programming

## DVD Codes

The remote control is programmed with DVD codes for power on/off, play, stop, fast-forward, rewind, previous/next chapter, tray open/close, and still/pause operation.

- 1) Find the DVD player brand from the list of codes shown below.
  - 2) Slide the first 2-way selector switch to "TV" and the other 2-way selector switch to "DVD".
  - 3) Press and hold down the DISPLAY button, then enter the first code number listed with the 10 key pad.
  - 4) Release the DISPLAY button, and confirm the operation of the DVD player.
- If your DVD player does not respond to the first code, try the others listed. If it does not respond to any of the codes, try the search codes function on page 36.
  - After you program your remote, some DVD buttons may not work properly. If so, use the DVD player's remote.

DVD Player	Codes	DVD Player	Codes	DVD Player	Codes
Aiwa	043	Mintek	057	Sharp	028
Apex	040, 054, 055	Mitsubishi	025	Sylvania	038
Bose	058	Next Base	056	SMC	048
Denon	020, 037	Onkyo	041, 052	Sony	024, 045, 046, 047
Funai	038	Oritron	044	Technics	020
Go-Video	032	Panasonic	020	Thomson	021
Harman Kardon	053	Philips	023, 036	Toshiba	023
Hitachi	031	Pioneer	022	Venturer	051
JVC	000	Polk Audio	036	Vialta	050
Kenwood	035, 020	Raite	033	Wave	042
KLH	051	RCA	021, 026	Yamaha	020, 049
Konka	039	Sampo	034	Zenith	027, 032
Koss	050	Samsung	030		

# Remote Programming

## Search Codes

### Cable/Satellite Search Codes Function

- 1) Slide the first 2-Way Mode Selector switch to CATV.
- 2) Press the POWER and RETURN+/TV buttons. Hold for at least three seconds and release.
- 3) Press the POWER button on the remote, and see if the cable or satellite box responds.
- 4) If there was a response, press RETURN+/TV. The codes are now set. If there was no response, repeat Step 3. If you repeat Step 3 a total of 80 times without a response, use the remote control that came with your equipment.
- 5) Press RETURN+/TV to exit.


### VCR/DVD Search Codes Function

- 1) Slide the first 2-way selector switch to "TV" and the other 2-way selector switch to "VCR" or "DVD".
- 2) Press the VCR or DVD POWER and RETURN+/TV buttons. Hold for at least three seconds and release.
- 3) Press the VCR or DVD POWER button, and see if the VCR or DVD responds.
- 4) If there was a response, press RETURN+/TV. The codes are now set. If there was no response, repeat Step 3. If you repeat Step 3 a total of 80 times for the VCR (40 times for the DVD player), and there is no response, use the remote control that came with your equipment.
- 5) Press RETURN+/TV to exit.

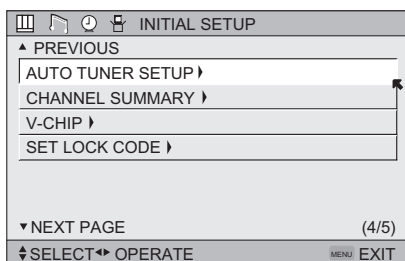
# Onscreen Menus

## Using the Guide

Certain symbols are used throughout this guide to help you learn about the features of your new television. The ones you will see most frequently are:

- ▲▼ Up and Down arrows mean press the CH+ or CH- buttons. Pressing the CH+ or CH- buttons let you:
  - Move vertically in a main menu screen
  - Move through a submenu screen
  - Move to the next letter, number, or other choice in a submenu
  - Back up to correct an error
  - Scan through TV channels (when not in a menu screen)
- ◀▶ Left and right arrows mean press the VOLUME+ or VOLUME- buttons to move left or right to:
  - Select a highlighted menu item
  - Select an item in a submenu
  - Select numbers in certain menu options
  - Turn the volume up or down (when not in a menu screen)
-  The “press button” icon means you should press the button named on your remote control. (Button names appear in SMALL CAPITAL LETTERS.)
- ↖ The “helping arrow” icon points to the highlighted or selected item in a menu.

**To bring up the onscreen menu,** press the MENU button on the remote control. The item that appears in green is the one currently selected. If you use the Menu button on the TV's side panel instead of the remote, an additional menu screen showing VIDEO STATUS and ASPECT will appear between INITIAL SETUP and PICTURE ADJUST. The “interactive plug-in menu” will appear the first time the TV is plugged in.



### Note:

- Menus shown in this book are illustrations, not exact replications of the television's onscreen displays.

# Onscreen Menus

## The Onscreen Menu System

Your television comes with JVC's onscreen menu system. The onscreen menus let you make adjustments to your television's operation simply and quickly. Examples of the onscreen menus are shown on the next page. Detailed explanations on using each menu follow later in this guide. For information about the interactive plug-in Menu, see pages 30 - 32.

## The Onscreen Menu System

To open the onscreen menu system, press the **MENU** button on the remote control. You navigate within the onscreen menus by using the four directional arrow buttons on the remote control. (These buttons are also the **CH +/-** and **VOL +/-** buttons. Channel and volume functions will not operate when the onscreen menu is active).

The selected feature and option on a menu screen are highlighted in a different color.

**Selected Option  
(Green)**



**Selected Option  
(Blue)**

To move to a different feature use the **▲ ▼** arrows to move up or down the list. When you press the up arrow at the top of the list or the down arrow at the bottom, the next menu screen will appear. Use the arrows **◀ ▶** to select an option from the highlighted feature. Pressing **MENU** on the remote control will close the onscreen menu system and return you to normal television viewing.

Each menu and its features will be discussed in the following pages of this guide.

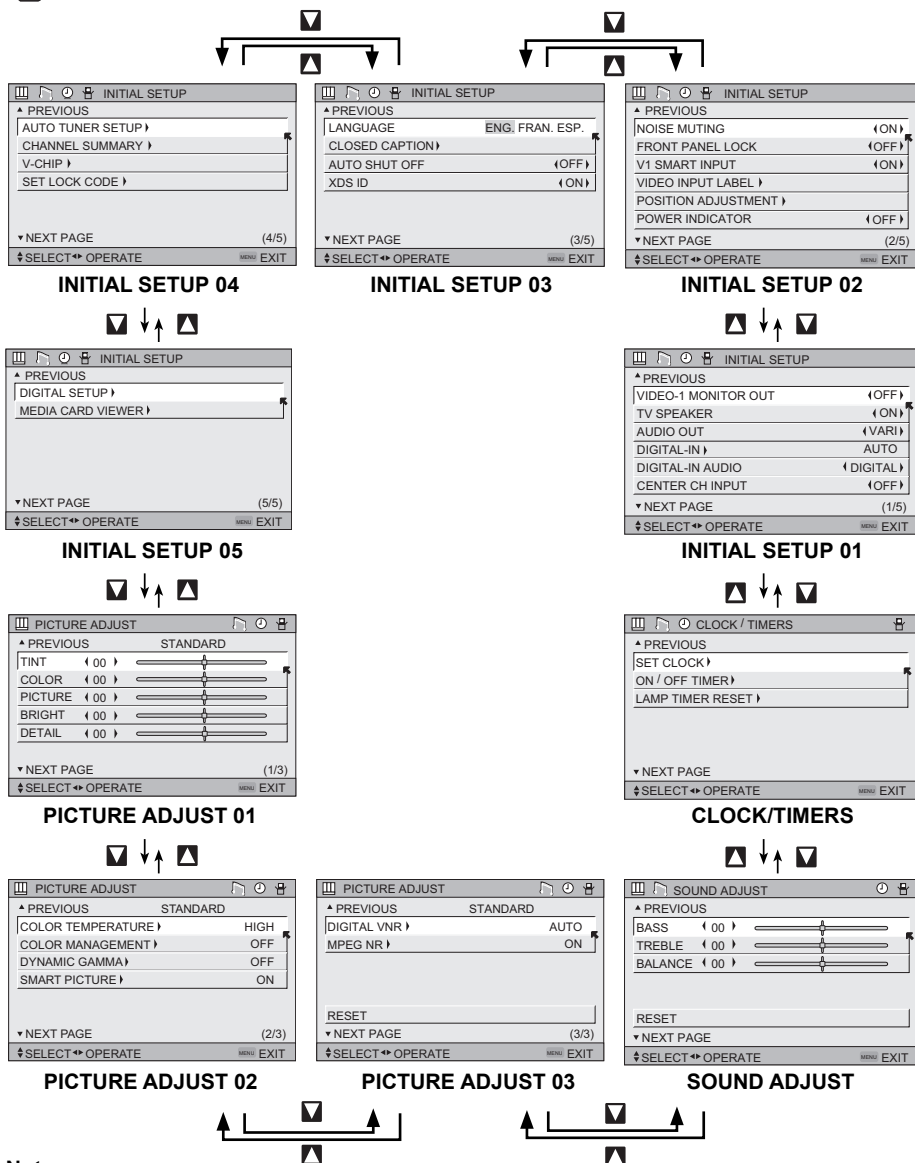
### Notes:

- If you do not press any buttons for about a minute, the onscreen menu will automatically shut off.
- Button names in this guide are shown in **SMALL CAPITAL LETTERS**.
- Menus may appear in different sizes onscreen depending on the aspect ratio selected.
- Some menu items may not appear in menu screens when certain aspect ratios or inputs are selected.

# Onscreen Menus



Press the MENU button



## Notes:

- The DIGITAL-IN menu can only be displayed when a 480p picture signal is input to the digital-in terminal and the picture is being displayed on the screen.
- SMART PICTURE menu cannot be displayed when DYNAMIC is selected for Video Status.
- When the Menu button on the TV side panel is pressed, the FRONT PANEL CONTROL menu between INITIAL SETUP 05 and PICTURE ADJUST 01 will appear.
- Regarding the digital setup menu, see page 78.
- MEDIA CARD VIEWER is for HD-70FH96 ONLY.

# Initial Setup

## Auto Tuner Setup

The auto tuner setup function is described on page 32 as the interactive plug-in menu. If you need to run the auto tuner setup again, follow the steps below.



Press the MENU button



To AUTO TUNER SETUP



To operate



To TUNER MODE (IN ANALOG)



To choose CABLE, AIR or SKIP



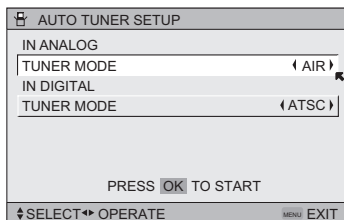
To TUNER MODE (IN DIGITAL)



To choose ATSC, DIGITAL CABLE or SKIP



Press the Ok button to start



Programming will take approximately 2 to 4 minutes. The auto tuner is finished when the message **PROGRAMMING OVER!** appears onscreen.



Press the Menu button when finished

### Note:

- Digital Auto Tuner Setup will take approximately 14 minutes.



# Initial Setup

## Channel Summary

Channel summary allows you to customize the line-up of channels received by your TV. Regarding analog channels, you can add or delete channels from the line-up or prevent any unauthorized viewers from watching any or all 191 channels. Regarding digital channels, the only channels that will appear are the ones that are broadcasting.



Press the MENU button



To CHANNEL SUMMARY



To operate

The Channel summary screen will now be displayed with the channels set to scan marked with an "✓". Regarding analog channels, you can delete channels from the scan by removing the "✓". If any channels were missed during auto tuner setup and you wish to add them, you may by placing an "✓" next to the channel number.

- Digital channels can not be added to the channel summary if the auto tuner setup did not find them.



To the SCAN column



Press the Ok button to include or delete from scan



Press the MENU button when finished

### Note:

- The number of a digital channel may change, depending on the time of some broadcastings. If this channel existed and now had disappeared, the lock channel or scanned channel by the channel summary for that channel will be cancelled.

### Analog Channels

CHANNEL SUMMARY							
CHNO.	SCAN	ID	LOCK	CHNO.	SCAN	ID	LOCK
01				06	✓	HBO	
02	✓	MTV		07	✓	L	
03				08			
04	✓	A&E		09	✓		
05	✓	E!		10			

### Digital Channels

Channel Summary Digital				
CH No.	Scan	Station Name	LOCK	
D01	✓	FOX		
D02	✓	ABC		
D02		CNN		
D10-1	✓	NBC	✓	
D10-2		BOX		
D12345	✓	NHK		

### Note:

- When the Cable Card is not inserted into the Cable Card Slot:  
If you are watching analog channels, the above screen appears.  
If you are watching digital channels, the below screen appears.
- When the Cable Card is inserted into the Cable Card Slot:  
Below screen appears  
Both analog and digital channels are listed, but the background video is not displayed.

# Initial Setup

How to set the channel label. *(This is only for analog broadcasting.)*



Press the MENU button



To CHANNEL SUMMARY



To operate



To the ID column



Press the Ok button to enter



To select the character you want



To move to the next space

*...continue to follow these directions for all four spaces*

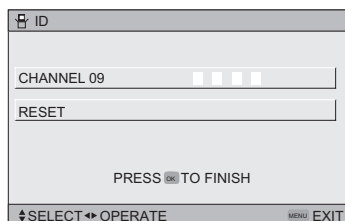


Press the Ok button to finish

*Your characters are now set*



Press the MENU button when finished



If you want to reset the characters you set:



Press the MENU button



To CHANNEL SUMMARY



To operate



To the ID column



Press the Ok button to enter



To select RESET



Press the Ok button to finish

*Your characters are now reset*

## Notes:

- You can use characters for: Alphabet, numbers, marks and spaces.
- It is possible to set the maximum of 40 channel labels.
- If you try to set more than the 40 maximum, the message "MEMORY OVERFLOW" will appear.

You can block access to a channel by activating the channel lock.



Press the MENU button



To CHANNEL SUMMARY



To operate



To the Lock Column (  )



Press the ZERO button to lock or unlock that channel



Press the MENU button when finished

# Initial Setup

## Channel Guard Message

When a viewer attempts to watch a guarded channel, the following message appears:

To watch a channel that you have locked, enter the Lock Code using the 10 key pad.

If the wrong code is entered, the message "INVALID LOCK CODE!" will flash on the screen.

The channel cannot be accessed until the correct code is entered.

THIS CHANNEL IS LOCKED BY  
CHANNEL GUARD.  
PLEASE ENTER LOCK CODE BY  
10 KEY PAD TO UNLOCK IT.

NO. - - - -

### Notes:

- Once a channel has been unlocked, it will remain unlocked until the television is turned off.
- See also "Set Lock Code", page 49.

## V-Chip

Your TV is equipped with V-Chip technology which enables you to block channels or content that you feel to be inappropriate for children, based on US and Canada rating guidelines.

V-Chip has no effect on video signals from DVD discs or Camcorder connection.

**Note:** Some programs, and movies are broadcast without a ratings signal. Even if you set up V-CHIP ratings limits, these programs will not be blocked. See page 44 for information on how to block unrated programs.

**Note (for Canadian viewers):** The V-Chip function is based on specifications designed for the United States and therefore may not work properly in Canada.

You can customize the V-Chip settings of your television to match your personal tastes. The V-Chip menu below is the starting point for your V-Chip settings

You can use US V-Chip settings (for programming broadcast from the United States), Canadian V-Chip settings (for programming broadcast from Canada), and movie ratings. You may use any or all of the settings (US V-Chip, Canada V-Chip, Movie ratings). Descriptions for setting each of the three V-Chip formats appear in the next six pages along with descriptions of the rating categories.

To access the rating categories:



Press the MENU button



To V-CHIP



To operate (Lock icon  will appear)



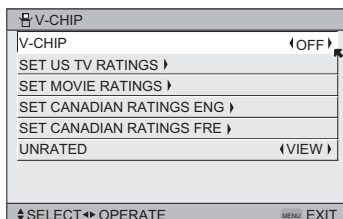
Press ZERO to access the V-Chip menu



To turn V-Chip ON or OFF (V-Chip must be turned ON for rating settings to operate)



To move to SET US TV RATINGS, SET MOVIE RATINGS, or SET CANADIAN RATINGS (see following pages for descriptions of each item)



# Initial Setup

## Unrated Programs

Unrated programming refers to any programming which does not contain a rating signal. Programming on television stations which do not broadcast rating signals will be placed in the "Unrated Programming" category.

Examples of Unrated programs:

- Emergency Bulletins
- News
- Public Service Announcements
- Sports
- Some Commercials
- Locally Originated Programming
- Political Programs
- Religious Programs
- Weather

### Note:

- TV programs or movies that do not have rating signals will be blocked if the unrated category is set to BLOCK.

## Directions to Block Unrated Programs

You can block programs that are not rated.



Press the MENU button



To V-CHIP



To operate (The lock icon  appears)



Press ZERO to access V-Chip setup options



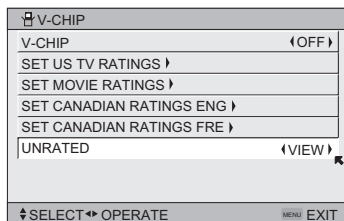
To UNRATED



To VIEW or BLOCK



Press MENU when done



## US V-Chip Ratings

### U.S. PARENTAL RATING SYSTEMS

Programs with the following ratings are appropriate for children.

☐ **TV Y is Appropriate for All Children**

Programs are created for very young viewers and should be suitable for all ages, including children ages 2 - 6.

☐ **TV Y7 is for Older Children**

Most parents would find such programs suitable for children 7 and above. These programs may contain some mild fantasy violence or comedic violence, which children should be able to discern from reality.

Programs with the following ratings are designed for the entire audience.

☐ **TV G stands for General Audience**

Most parents would find these programs suitable for all age groups. They contain little or no violence, no strong language, and little or no sexual dialog or situations.

☐ **TV PG Parental Guidance Suggested**

May contain some, but not much, strong language, limited violence, and some suggestive sexual dialog or situations. It is recommended that parents watch these programs first, or with their children.

☐ **TV 14 Parents Strongly Cautioned**

Programs contain some material that may be unsuitable for children under the age of 14 including possible intense violence, sexual situations, strong coarse language, or intensely suggestive dialog. Parents are cautioned against unattended viewing by children under 14.

☐ **TV MA Mature Audiences Only**

These programs are specifically for adults and may be unsuitable for anyone under 17 years of age. TV MA programs may have extensive V, S, L, or D.

### Viewing Guidelines

In addition to the ratings categories explained above, information on specific kinds of content are also supplied with the V-Chip rating. These types of content may also be blocked. The content types are:

- **V/FV** is for VIOLENCE/FANTASY VIOLENCE
- **S** stands for SEXUAL CONTENT
- **L** stands for strong LANGUAGE
- **D** stands for suggestive DIALOG

# Initial Setup

## Setting US V-Chip Ratings




Press the MENU button



To V-CHIP



To operate (lock icon  appears)



Press ZERO to access the V-Chip menu



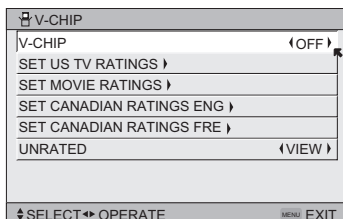
To turn V-Chip ON or OFF






To move to SET US TV RATINGS



To operate



## Directions to set US V-Chip Ratings

Line up the cursor in the column (TV PG, TV G, etc.) with the content row (V/FV, S, etc.) and press the  or  to move the cursor to the correct location. Press Ok to turn the locking feature on or off. An item is locked if the  icon appears instead of a “—”.

**For example.** To block viewing of all TV 14 shows, move the cursor to the top row of that column and add a lock icon. Once you've put a lock on the top row, everything in that column is automatically locked.



To the TV 14 Column



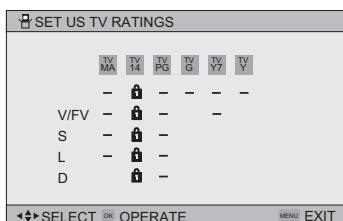
Press the Ok button to lock



Press the MENU button when finished

### Note:

- If you want to change the setup, move the cursor to the top column and change the lock icon to “—” by pressing OK again. You may then select individual categories to block.



# Initial Setup

## Movies Ratings

### ☐ **NR – Not Rated**

This is a film which has no rating. In many cases these films were imported from countries which do not use the MPAA ratings system. Other NR films may be from amateur producers who didn't intend to have their film widely released.

**NR (Not Rated) Programming may contain all types of programming including children's programming, foreign programs, or adult material.**

### ☐ **G – General Audience**

In the opinion of the review board, these films contain nothing in the way of sexual content, violence, or language that would be unsuitable for audiences of any age.

### ☐ **PG – Parental Guidance**

Parental Guidance means the movie may contain some contents such as mild violence, some brief nudity, and strong language. The contents are not deemed intense.

### ☐ **PG-13 – Parents Strongly Cautioned**

Parents with children under 13 are cautioned that the content of movies with this rating may include more explicit sexual, language, and violence content than movies rated PG.

### ☐ **R – Restricted**

These films contain material that is explicit in nature and is not recommended for unsupervised children under the age of 17.

### ☐ **NC-17 – No One Under 17**

These movies contain content which most parents would feel is too adult for their children to view. Content can consist of strong language, nudity, violence, and suggestive or explicit subject matter.

### ☐ **X – No One under 18**

Inappropriate material for anyone under 18.

## Directions to set Movie (MPAA) Ratings




Press the MENU button



To V-CHIP



To operate (Lock icon  appears)



Press ZERO to access V-Chip setup options



To SET MOVIE RATINGS



To enter movies menu

### **For example:**

To block viewing of X and NC-17 rated from shows:



To the X Column



Press the Ok button to lock



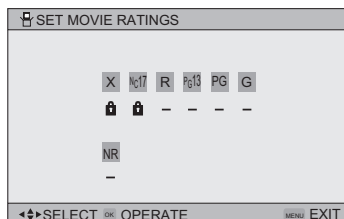
To the NC-17 Column



Press the Ok button to lock



Press the MENU button to finish



# Initial Setup

## Canadian V-Chip Ratings

### ☐ **E – Exempt**

Exempt programming includes: news, sports, documentaries and other information programming, talk shows, music videos, and variety programming.

### ☐ **C – Programming Intended for Children**

Violence Guidelines: There will be no realistic scenes of violence. Depictions of aggressive behavior will be infrequent and limited to portrayals that are clearly imaginary, comedic or unrealistic in nature.

### ☐ **C8+ – Programming Intended for Children 8 and Over**

Violence Guidelines: Any realistic depictions of violence will be infrequent, discreet, of low intensity and will show the consequences of the acts. There will be no offensive language, nudity or sexual content.

### ☐ **G – General Audience**

Programming will contain little violence and will be sensitive to themes which could affect younger children.

### ☐ **PG – Parental Guidance**

Programming intended for a general audience, but which may not be suitable for younger children. Parents may consider some content not appropriate for children aged 8-13.

### ☐ **14+ – 14 Years and Older**

Parents are strongly cautioned to exercise discretion in permitting viewing by pre-teens and early teens. Programming may contain mature themes and scenes of intense violence.

### ☐ **18+ – Adult**

Material intended for mature audiences only.

## Directions to set Canadian V-Chip Ratings



Press the MENU button



To V-CHIP



To operate (lock icon  appears)



Press ZERO to access V-Chip setup options



To SET CANADIAN RATINGS ENG (for English)



To enter ratings menu

### **For example:**

To block viewing of programming rated 14+ and 18+:



To the 18+ Column



Press the Ok button to lock



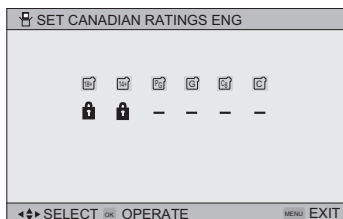
To the 14+ Column



Press the Ok button to lock



Press the MENU button to finish



### **Note:**

- For instructions on “SET CANADIAN RATINGS FRE (in French)”, please see page 48 in the French side of this user’s guide.



# Initial Setup

## Set Lock Code

Channel guard and V-Chip settings are protected by a four-digit lock code. Your TV comes preset with a lock code of "0000". You may change the code to any four-digit number you wish. To change the lock code, follow the steps below.




Press the MENU button



To SET LOCK CODE



To operate (lock icon  appears)



Press ZERO to access the lock code

The first digit will be highlighted



To select the number



To move to the next digit

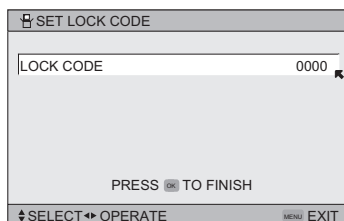
Continue to follow these directions for all four numbers



Press the OK button to finish (your lock code is now set)



Press the Menu button when finished



When a viewer attempts to watch a blocked channel, this message appears:

THIS PROGRAMMING EXCEEDS  
YOUR RATING LIMITS.  
PLEASE ENTER LOCK CODE BY  
10 KEY PAD TO UNLOCK IT.  
NO. - - - -

The channel will remain blocked until the correct lock code is entered (see above for information on setting your lock code).

### Notes:

- After a power interruption you must reset the lock code.
- Write your lock code number down and keep it hidden from potential viewers.
- If you forget the lock code, a new code may be set using the steps listed above.

# Initial Setup

## Language

The language function is described on page 30 as the interactive plug-in menu. If you need to choose the language again, follow the steps below.



Press the Menu button



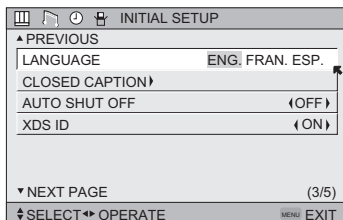
To LANGUAGE



To choose a language: ENG. (English),  
FRAN. (French) or ESP. (Spanish)



Press the MENU button when finished



## Closed Caption

Many broadcasts now include an onscreen display of dialog called closed captions. Some broadcasts may also include displays of additional information in text form. Your television can access and display this information using the closed caption feature. To activate the closed caption feature, follow the steps below. There are three methods. When you are watching analog channels, you can perform Analog Setting of closed caption. When you are watching digital channels, you can perform Digital Auto Setting or Digital Manual Setting.

## Analog Setting



Press the MENU button



To CLOSED CAPTION



To enter



To MODE



To select CAPTION or TEXT in MODE



To CAPTION or TEXT



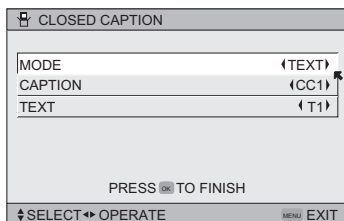
To select a caption (CC1 to CC4) or text  
channel (T1 to T4)



Press the Ok button to save



Press the MENU button when finished



## Digital Auto Setting



Press the MENU button



To CLOSED CAPTION



To enter



To Type



To select Auto, Advanced or Basic

**Auto:** Shows closed caption a priority for digital channels over analog channels. It is set automatically.

**Advanced:** Shows only the digital closed caption.

**Basic:** Shows only the analog closed caption.



To Service



To select 1, 2, 3, 4, 5 or 6



To Appearance



To enter



To select Auto



To Set

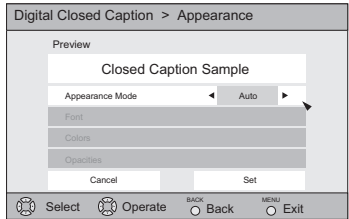
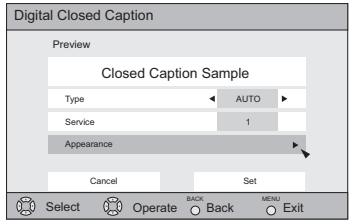


Press the Ok button to save

*The font/type and color are set automatically.*



Press the MENU button when finished



### Note:

- If you want to cancel the settings, select cancel.

# Initial Setup

## Digital Manual Setting



Press the MENU button



To CLOSED CAPTION



To enter



To Type



To select Auto, Advanced or Basic



To Service



To select 1, 2, 3, 4, 5 or 6



To Appearance



To enter



To select Manual



To Font



To enter



To select Font Size or Font Style



To select the setting you like

Font Size: Auto, Standard, Large or Small

Font Style: Auto, Serif Mono, Serif, Sanserif mono, Sanserif, Casual, Cursive or Small Capital



To Set



Press the Ok button to save



To Colors



To enter



To select Text, Edge or Background



To select the setting you like

Auto, White, Black, Red, Green, Blue,  
Yellow, Magenta or Cyan



To Set



Press the Ok button to save



To Opacities



To enter



To select Text/Edge or Background



To select Auto, Transparent, Translucent, Solid  
or Flashing



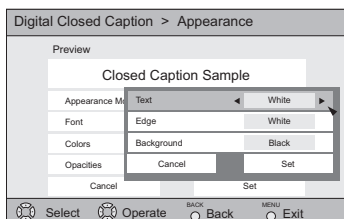
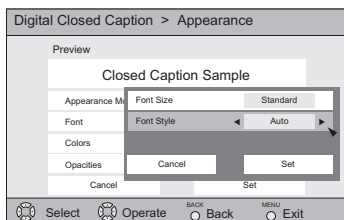
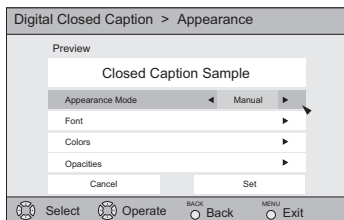
To Set



Press the Ok button to save



Press the MENU button when finished



All fonts used for digital closed caption and digital menus are licensed from Monotype Imaging Inc.

### Notes:

- Closed caption subtitles are usually found on closed caption channel CC1. Some programs may include additional text information which is usually found on text channel T1. The other channels are available for future use.
- Closed captioning may not work correctly if the signal being received is weak or if you are playing a video tape.
- Most broadcasts containing closed captioning will display a notice at the start of the program.
- To select the mode, press the C.C. button. See page 73.

# Initial Setup

## Auto Shut Off

This function automatically shuts off your TV when there is no signal from the channel the TV is on.



Press the MENU button



To AUTO SHUT OFF

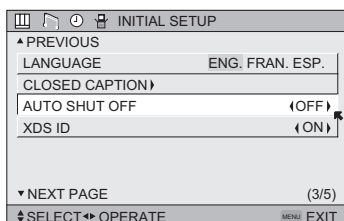


To turn ON or OFF



Press the MENU button when finished

- If the channel that you have on does not receive a signal for more than one minute, the blinking text "NOT RECEIVING A SIGNAL AUTO SHUT OFF IN 9 MIN." appears on the screen, and starts the countdown. If no signal is being received within 10 minutes, the TV shuts itself off.
- When i.LINK is displayed, Auto Shut Off will not work.



## XDS ID

XDS ID Display provides a channel's call letters, the network's name, and even a program name. The XDS ID information is provided by the broadcaster.



Press the MENU button



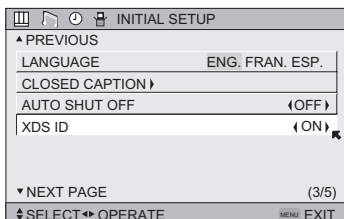
To XDS ID



To turn ON or OFF



Press the MENU button when finished



## Noise Muting

This feature inserts a blank gray screen over channels which are not broadcasting or are too weak to be received clearly.



Press the MENU button



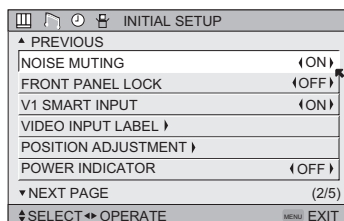
To NOISE MUTING



To turn noise muting ON or OFF



Press the MENU button when finished



### Notes:

- Noise muting will not work during auto tuner setup or when you operate channel summary.
- Noise muting will not work when the digital TV or i.LINK is displayed.

# Initial Setup

## Front Panel Lock

This allows you to lock the keys on the side of the TV, so that a child may not accidentally change your viewing preferences.



Press the MENU button



To FRONT PANEL LOCK



To turn ON or OFF



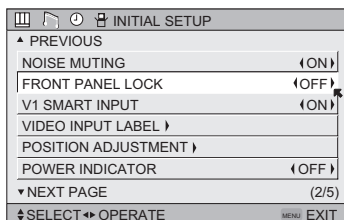
Press the MENU button when finished

You can turn off this feature in the following ways:

- Unplug the power cord, and plug it back in. Do this if your batteries die, or you lose your remote control.
- Use the remote control.
- Press the MENU button on the side of the TV for more than 3 seconds. In this case, the OSD for FRONT PANEL LOCK will appear.

### Note:

- To turn ON/OFF the TV, press the power button for more than 3 seconds. This feature will remain ON.



## V1 Smart Input

This feature is used if you have connected an AV Receiver to your television. By turning this feature on, your television can automatically detect the signal source from your components that are connected to your AV Receiver.



Press the MENU button



To V1 SMART INPUT



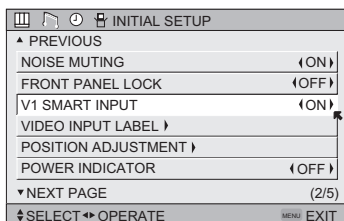
To turn ON or OFF



Press the MENU button when finished

### Notes:

- If you do not have an AV Receiver connected to your television, turn this feature OFF. By doing so, you can take advantage of using AV CompuLink components with your television.
- Some AV Receivers may not work with this function.



# Initial Setup

## Video Input Label

This function is used to label video input connections for the onscreen displays.



Press the MENU button



To VIDEO INPUT LABEL



To enter



To select the desired video input



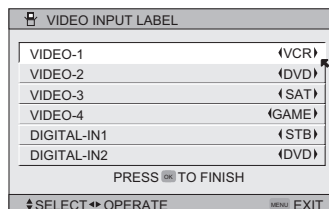
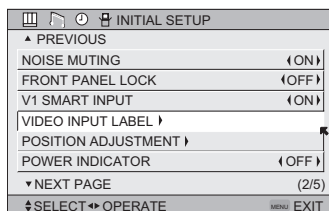
To select the desired preset input label (see chart below)



Press the OK button to save



Press the MENU button when finished



Preset Labels	Select when...
VCR	You have a VCR connected to the video input
DVD	You have a DVD connected to the video input
DVHS	You have a Digital VCR connected to the video input
STB	You have a Set-top Box connected to the video input
SAT	You have a Satellite Receiver connected to the video input
AMP	You have an Amplifier connected to the video input
GAME	You have a Video Game connected to the video input
CAM	You have a Video Camera connected to the video input
DISC	You have a Video Disc player connected to the video input

# Initial Setup

## Position Adjustment

Position adjustment allows you to adjust the position of the picture on the screen vertically when the aspect is set to panorama or cinema.



Press the MENU button



To POSITION ADJUSTMENT



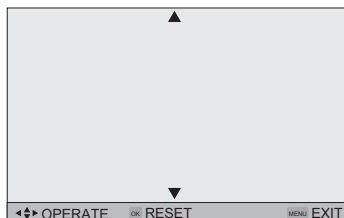
To enter



To adjust the position



Press the MENU button to finish



### Notes:

- To reset the adjustment to the center, press the Ok button.
- When the arrow disappears, while you are adjusting the position, the position is at its maximum limit.
- If you select REGULAR, SLIM and FULL size with aspect or Multi Screen, position adjustment option is not seen.
- When you change the screen size, perform the position adjustment again.
- Position adjustment allows you to adjust the screen position vertically and horizontally when the aspect is set Panorama Zoom or Cinema Zoom for 1080i and 720p signals, or when PC mode is set.

## Power Indicator

Power indicator allows you to adjust the brightness of the power indicator



Press the MENU button



To POWER INDICATOR



To adjust POWER INDICATOR LOW, HIGH or OFF

### Notes :

- When OFF is selected :  
The LED disappears if you have a TV signal.  
The LED is lit as "LOW" when there is no TV signal.
- When the On Timer turns ON, the LED is lit as "LOW" when you turn the power off.
- If you set a timer on the TV, the power indicator will light even if the TV is on stand by.

